Temperature WQS in the Pacific Northwest

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Why Does Water Temperature Matter?

- Human activities warm rivers
  - *Forestry, Ag, Dams, Dikes, Cities, Industry*
- Warm river temperatures harm salmon & trout
  - *Disease, growth, competition, egg survival*
- Warm river temps are an indicator of watershed habitat degradation
- Reducing river temperatures requires changes to human activities

WQS, the CWA & ESA

- CWA requires States to adopt WQS
  - Uses (fish), Criteria (temp), Antidegradation
- EPA must approve or disapprove State WQS
- EPA must complete ESA consultation on WQS approval actions
- WQS Implementation
  - 303(d) list of impaired waters
  - TMDLs
  - NPDES permits
  - Non-point programs (e.g., forestry rules)

EPA Region 10 Temperature Guidance

- Finalized in April 2003
  www.epa.gov/r10earth/temperature.htm
- What is the purpose?
- Why did EPA do it?
- How did EPA do it?
- What does it recommend?

Purpose of the Guidance

- Assist Northwest States and Tribes in adopting/revising temperature WQS that meet CWA and ESA requirements and Tribal treaty obligations
  - streamline complex approval process
- Assist in the recovery of sustainable populations of salmonids
- Provide Guidance -- States/Tribes can adopt something different

Why

- Concerns over "What is the right criteria?"
  - EPA approval of OR WQS (1999)
  - EPA's ESA consultation on OR WQS
- No national guidance on temperature criteria for Pacific NW salmonids
- Provide consistent guidance to NW states/tribes revising fish use/temp standards

How

- Interagency team (EPA, States, Services, Tribes)
- 2 public comment periods
- Scientific Peer Review
- 3 year process

Temperature Guidance *Recommendations*

1. Designate fish uses
2. Adopt numeric temperature criteria
3. WQS provisions to protect existing cold water
4. Provisions for thermal plumes
5. Address non-attainment situations: natural conditions, site-specific criteria and use attainability analysis

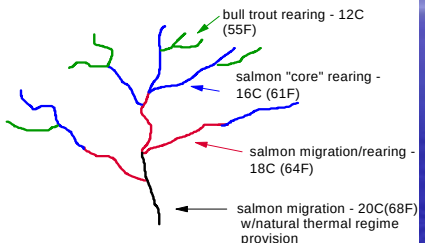
Uses and Criteria

- Bull Trout Juvenile Rearing 12 C
- Salmon/Trout Core Juvenile Rearing 16 C
- Salmon/Trout Migration – Non-core Juvenile Rearing 18 C
- Salmon/Trout Migration 20 C plus protection cold water refugia

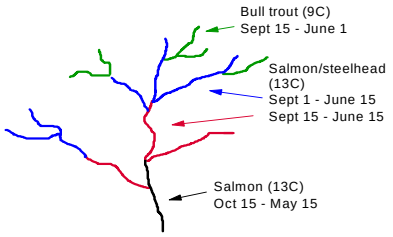
Uses and Criteria (cont.)

- Bull Trout Spawning 9 C
- Salmon/Trout Spawning, Egg Incubation & Fry Emergence 13 C
- Steelhead Smoltification 14 C

EPA Recommended Fish Uses & Temperature Criteria



EPA Recommended Spawning/Incubation Criteria
(example date range)



Temp Guidance Application

- 2003 Oregon WQS – *EPA approved 2004*
- 2003 WA WQS – *under EPA review*
- Hells Canyon spawning SSC
  – *EPA approved 2004*
- Potlatch Permit – *EPA issued 2005*